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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/909,910	07/23/2001	Yoshio Sano	Q65531	9164

7590 02/01/2005

SUGHRUE, MION, ZINN, MACPEAK & SEAS
2100 Pennsylvania Avenue, N.W.,
Washington, DC 20037

EXAMINER	
DONG, DALEI	

ART UNIT	PAPER NUMBER
2879	

DATE MAILED: 02/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/909,910	SANO ET AL.	
	Examin r	Art Unit	
	Dalei Dong	2879	

-- The MAILING DATE of this communication appears on th cover sh t with th correspondenc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 November 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-46,48,50-52 and 55-97* is/are pending in the application.

4a) Of the above claim(s) *3,4,6-46,48,50-52 and 55-97* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2 and 5* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 July 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 5/28/04
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 17, 2004 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,249,264 to Sano in view of U.S. Patent No. 5,900,694 to Matsuzaki.

Regarding to claim 1, Sano discloses in Figure 4 and 7A, an AC discharge plasma display panel (1A) comprising: a front substrate (11); a rear substrate (21); a sealing portion (not shown) operable to encapsulate the front substrate (11) and the rear substrate (21) at a peripheral edge portion thereof to seal a discharge gas therein (xenon filled within the discharge space 30); column ribs (barrier rib of first type 29) extending

longitudinally (in the direction of D2) and row ribs (barrier rib of second type 50) extending laterally (in the direction of D1), perpendicular to the column ribs (barrier rib of first type 29), to thereby define pixel cell (30) in a matrix; a plurality of electrodes (address electrode 22), provided on the rear substrate (21), each extending longitudinally (in the direction of D2) in the column direction, a plurality of plane discharge electrodes (YE and XE), each extending laterally (in the direction of D1) in the row direction, provided on the front substrate (11), having display electrodes (41) and bus electrodes (42); wherein the display electrodes comprise sustain electrodes (component 41 of YE electrode) and scan electrode (component 41 of XE electrode) connected to sustain-side bus electrodes (component 42 of YE electrode) and scan-side bus electrodes (component 42 of XE electrode), respectively, wherein the sustain-side bus electrodes (component 42 of YE electrode) and the scan-side bus electrodes (component 42 of XE electrode) are parallel to the row ribs (barrier rib of second type 50) and are spaced from row ribs (barrier rib of first type 29) in the column direction (in the direction of D2), wherein each pixel cell (30), individually, has one sustain-side bus electrode (component 42 of YE electrode) and one scan-side bus electrode (component 42 of XE electrode).

However, Sano does not disclose one sustain electrode is provided for a pair of first and second pixel cells adjacent to each other in the column direction, and wherein the one sustain electrode is positioned above alternating the row ribs. Matsuzaki teaches in Figures 6a and 7a, teaches one sustain electrode (display electrode 191) is provided for a pair of first and second pixel cells adjacent to teach other in the column direction, and the one sustain electrode is positioned above alternating row ribs for the purpose of

achieving lower brightness in the dark state and higher brightness in the bright state, and thus high contrast is realized.

Although, Matsuzaki does not teaches the one sustain electrode (display electrode 191) has two sustain-side bus electrodes connected to it, however, Sano discloses in Figures 4 and 7A, that there are one sustain-side bus electrode for each pixel and since the one sustain electrode encompasses two adjacent pixels, hence two sustain-side bus electrodes are needed for the one sustain electrode.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilize the one sustain electrode of Matsuzaki with two sustain-side bus electrode connected to it in accordance to Sano for the plasma display panel of Sano in order to achieving lower brightness in the dark state and higher brightness in the bright state, and thus high contrast is realized.

Regarding to claim 2, Matsuzaki teaches in Figures 6A and 7A, neighboring sustain electrodes (191) or sustain-side bus electrode (192) for neighboring pixel cells arranged in the column direction are electrically connected to each other in the panel (4).

Regarding to claim 5, Sano discloses in Figure 4, the column ribs (barrier ribs of first type 29) and the row ribs (barrier ribs of second type 50) form lattice-shaped ribs and are provided on the rear substrate (21).

Response to Arguments

4. Applicant's arguments filed November 17, 2004 have been fully considered but they are not persuasive.

In response to Applicant's argument that the Matsuzaki reference fails to teach or suggest the two sustain-side bus electrode connected to one sustain electrode claimed by the Applicant. The Examiner asserts that although the Matsuzaki reference does not teach the one sustain electrode (display electrode 191) has two sustain-side bus electrodes connected to it, the Sano reference however discloses in Figures 4 and 7A, that there are one sustain-side bus electrode for each pixel and since the one sustain electrode of the Matsuzaki reference encompasses two adjacent pixels, hence it would have been obvious to one having ordinary skill in the art at the time the invention was made to connect two sustain-side bus electrodes for each pixel cell of Sano for the one sustain electrode of Matsuzaki in order to facilitate electron discharge and thus increase the efficiency of the display.

Also, in response to Applicant's argument that the Matsuzaki reference fails to teach or suggest the bus electrodes are spaced from row ribs in the column direction; the Examiner asserts that the Matsuzaki reference may not show the bus electrodes are spaced from row ribs in the column direction, Sano clearly discloses in Figure 7A, that the bus electrodes (42) are spaced from row ribs (barrier ribs of second type 50) in the column direction (in the direction of D2). Thus, the Examiner asserts that the prior art of record teaches the claimed invention.

Further, in response to Applicant's argument that the Sano reference and the Matsuzaki reference fails to teach or suggest a single discharge electrode for two adjoining pixels connecting to two bus electrodes; wherein the two bus electrodes extend laterally, are in separate pixels, and are each spaced in the column direction from the row rib. The Examiner asserts that Sano reference clearly discloses two bus electrodes (42); wherein the two bus electrodes (42) extends laterally (in the direction of D1) and disposed in separate pixels (30), and also spaced in the column direction (in the direction of D2) from the row rib (barrier rib of second type 50); and the Matsuzaki reference teaches in Figures 6A and 7A, that one single discharge electrode encompasses two pixel cells. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to connect two sustain-side bus electrodes for each pixel cell of Sano for the one sustain electrode of Matsuzaki in order to facilitate electron discharge and thus increase the efficiency of the display. Therefore, Examiner asserts that the prior art of record teaches the claimed invention and maintains the rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalei Dong whose telephone number is (571)272-2370. The examiner can normally be reached on 8 A.M. to 5 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar Patel can be reached on (571)272-2457. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

D.D.
January 7, 2005

Joseph Williams
Primary Examiner
Art Unit 2879